Topic: Converses of conditionals

Question: Choose the statement that would be the converse of this:

"If I'm lying, then my lips are moving."

Answer choices:

A If I'm not lying, then my lips are not moving.

B If my lips are moving, then I'm lying.

C If my lips are not moving, then I'm not lying.

D If I'm telling the truth, then my lips are moving.

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Solution: B

Answer choice B is the right one.

The two phrases “my lips are moving”, and “I'm lying” have been reversed, which is how a converse is formed.

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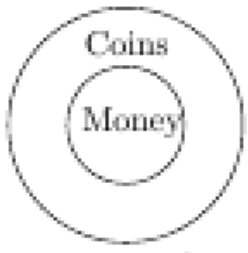
Topic: Converses of conditionals

Question: Choose the Euler diagram below that corresponds to the converse of

this statement:

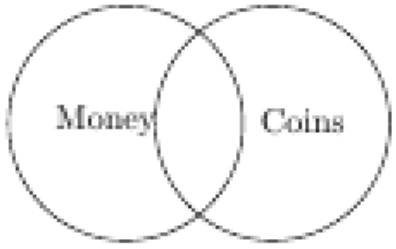
"All coins are money."

a)

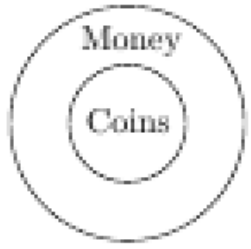


b)

c)



d)



Answer choices:

A A

B B

C C

D D

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Solution: A

Answer choice A is the right one.

The statement “All coins are money” can be phrased as an if-then statement:

“If it's a coin, then it's money.”

The converse would be

“If it's money, then it's a coin.”

Diagram A shows that if a thing is money (in the money circle), it's always a coin (in the coin circle.) In other words, all money is made of coins.

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Topic: Converses of conditionals

Question: Suppose a certain if-then statement is true. Will the converse of that statement be true?

Answer choices:

A Sometimes

B Always

C Never

D Only on Tuesdays

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Solution: A

Answer choice A is the right one.

Whether the converse is true depends totally on the original statement. Sometimes the converse is true and sometimes it's not.

Note: If the original statement is a *definition*, its converse will be true.

> Example: If it's a triangle, it has three sides.
>
> Converse: If it has three sides, it's a triangle.

Both statements are true, because the definition of a triangle is a figure with three sides.

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